REMARKS

Applicants would like to express appreciation to the Examiner for the detailed Official Action provided. Upon entry of the present paper, claims 4-5 and 9 will have been amended, and claims 1-3, 6-8 and 10-11 will have been canceled without prejudice or disclaimer. Claims 4-5 and 9 are pending before the Examiner. Applicants respectfully request reconsideration and withdrawal of the outstanding rejections of the claims pending in the present application. Such action is respectfully requested and is now believed to be appropriate.

Response to "Response to Arguments"

The Examiner has maintained the rejection of claims 1, 4, 5 and 9, finding Applicants' arguments made in view of the previously-presented amendments unpersuasive. Specifically, the Examiner has asserted, *inter alia*, that Applicants' arguments "merely amounts [*sic*] to general allegations that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references." Applicants respectfully disagree with all of the Examiner's statements in the "Response to Arguments" section of the outstanding Final Official Action, and note that in the previous Response of July 2, 2007, Applicants indeed specifically pointed out how the language of the claims patentably distinguish over the applied references. For example, Applicants noted in the previous response that KWON merely discloses a reactor 3 for absorbing a reactive power from the utility power supplied through the utility power supply 1 according to the turning on/off operation of the first relay 2, and providing the utility power to a main winding C1 of a compressor motor 'M', a second relay 4 for monitoring a voltage on the

reactor 3, a first contact 4a connected parallel to the third reactor 3 for being opened or closed by the second relay 4, an operating capacitor 5 connected in parallel to the third reactor 3, a starting capacitor 6 connected in parallel with the operating capacitor 5, a third relay 7 for monitoring a voltage at starting, a second contact 7a fitted to a fore end of the second relay 4 for being opened or closed by the third relay, and a third contact 7b fitted to a rear end of the starting capacitor, and as such KWON did not teach or disclose at least the claimed: a relay connected in parallel to a capacitor that countervails an inductance of a coil wound in a motor of the reciprocating compressor and for cutting off an overcurrent applied to the motor, as generally claimed in independent claim 5; and/or the positive temperature coefficient thermistor connected to the capacitor in parallel and for cutting off an overcurrent generated when the reciprocating compressor is initiated at an initial stage, and a reactor connected to the positive temperature coefficient thermistor in series and for cutting off a surge current generated when the reciprocating compressor is initiated at the initial stage, by increasing an inductance, as generally claimed in independent claim 9.

Rejection of claims 1 and 4

The Examiner has rejected claims 1 and 4 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,747,428 to KWON et al. for the same reasons set forth in the previous Official Action. Applicants again disagree with the Examiner's rejection and further expressly incorporate herein all of Applicants' previous response. Nevertheless, solely to expedite the patent application process and without agreeing to the propriety of the Examiner's rejection, Applicants have canceled claim 1 without prejudice or disclaimer, and have amended independent claim 4 to more explicitly recite

the claim limitations by generally reciting, *inter alia*, that the overcurrent cutting-off device is connected in series to the reactor, wherein the reactor and the overcurrent cutting-off device are connected in parallel to a capacitor that countervails an inductance of a coil wound in the motor of the reciprocating compressor. This feature is shown in a non-limiting embodiment in, *e.g.*,, Fig. 4.

Applicants note that KWON is directed to controlling supply of current and static capacitance to a compressor, which can prevent flow of excessive current to a main winding of the compressor, and which can in turn supply a stable voltage to the compressor regardless of variation of an external utility voltage; however, as shown in Fig. 1 of KWON, when a relay turns off, a power source is not connected with a motor. Due at least to the claimed limitation that the reactor and the overcurrent cutting-off device (relay) are connected in parallel to a capacitor in the present invention of claim 1, the power source is still connected to the motor via the capacitor, thereby ensuring stable supply of voltage to the compressor regardless of variation of an external utility voltage. KWON completely fails to teach or render obvious at least this parallel connection. It is thus respectfully submitted that claim 4 and KWON are patentably distinct.

Absent a disclosure in a single reference of each and every element recited in a claim, a *prima facie* case of anticipation cannot be made under 35 U.S.C. § 102. Since the applied reference fails to disclose each and every element recited in independent claim 4, this claim is not anticipated thereby. Accordingly, the Examiner is respectfully requested to withdraw the rejection under 35 U.S.C. § 102.

Rejection of Claim 5

The Examiner has rejected independent claim 5 under 35 U.S.C. § 103(a) as being obvious over KWON in view of U.S. Patent No. 6,715,301 to SONG for the same reasons set forth with respect to claim 8 in the previous official action. Applicants again disagree with the Examiner's rejection and further expressly incorporate herein all of Applicants' previous response. Nevertheless, solely to expedite the patent application process and without agreeing to the propriety of the Examiner's rejection, Applicants have amended independent claim 5 to more explicitly recite the claim limitations by generally reciting, *inter alia*, that the relay is connected in series to the reactor, and that the relay and the reactor are connected in parallel to a capacitor that countervails an inductance of a coil wound in a motor of the reciprocating compressor.

In this regard, and as discussed *supra*, KWON is directed to controlling supply of current and static capacitance to a compressor, which can prevent flow of excessive current to a main winding of the compressor, and which can in turn supply a stable voltage to the compressor regardless of variation of an external utility voltage; however, as shown in Fig. 1 of KWON, when a relay turns off, a power source is not connected with a motor. Further, SONG is directed to controlling a driving of a reciprocating compressor for a refrigerator using a linear motor to control a necessary voltage of a motor for obtaining a predetermined stroke by varying a capacitance according to a variation of a driving load of a refrigerator.

Due to at least the claimed limitation that the relay and the reactor are connected in parallel to a capacitor that countervails an inductance of a coil wound in a motor of

the reciprocating compressor in the present invention of claim 5, the power supply unit is still connected to the motor via the capacitor, thereby ensuring stable supply of voltage to the compressor regardless of variation of an external utility voltage. At least because KWON and SONG lack this parallel connection, these references, taken alone or in any proper combination, fail to anticipate or render obvious the invention of independent claim 5, namely, at least that the relay is connected in series to the reactor, and that the relay and the reactor are connected in parallel to a capacitor that countervails an inductance of a coil wound in a motor of the reciprocating compressor, as shown, *e.g.*, in Fig. 4. A non-limiting feature of such a configuration provides apparatus for controlling an operation of a reciprocating compressor capable of improving operational efficiency of the reciprocating compressor, by reducing a surge current generated when power is applied to the reciprocating compressor at an initial stage and thus reducing an initial stroke. Such feature cannot be accomplished by KWON and SONG, neither alone nor in any proper combination thereof.

Rejection of Claim 9

The Examiner has rejected independent claim 9 under 35 U.S.C. § 103(a) as being obvious over KWON in view of newly-applied U.S. Patent No. 5,212,436 to NACEWICZ. Applicants respectfully traverse the Examiner's rejection and note that independent claim 9 is markedly different from the applied references. Nevertheless, solely to expedite the patent application process and without agreeing to the propriety of the Examiner's rejection, Applicants have amended independent claim 9 to more explicitly recite the claim limitations by generally reciting, *inter alia*, that the positive

temperature coefficient thermistor and the reactor are connected in parallel to the capacitor.

In this regard, and as discussed *supra*, KWON is directed to controlling supply of current and static capacitance to a compressor, which can prevent flow of excessive current to a main winding of the compressor, and which can in turn supply a stable voltage to the compressor regardless of variation of an external utility voltage; however, as shown in Fig. 1 of KWON, when a relay turns off, a power source is not connected with a motor. Further, NACEWICZ is directed to a split phase motor starting system which provides starting and running characteristics of a conventional capacitor start, but at a low cost.

Due at least to the claimed limitation that the positive temperature coefficient thermistor and the reactor are connected in parallel to the capacitor, in the present invention of claim 9, a power source is still connected to the motor via the capacitor, thereby ensuring stable supply of voltage to the compressor regardless of variation of an external utility voltage. At least because KWON and NACEWICZ lack this parallel connection, these references, taken alone or in any proper combination, fail to anticipate or render obvious the invention of independent claim 9, namely, at least that the reactor is connected in series to the positive temperature coefficient thermistor, and that the positive temperature coefficient thermistor and the reactor are connected in parallel to the capacitor, as shown, *e.g.*, in Fig. 4. As discussed *supra*, a non-limiting feature of such a configuration provides apparatus for controlling an operation of a reciprocating compressor capable of improving operational efficiency of the reciprocating compressor, by reducing a surge current generated when power is applied

to the reciprocating compressor at an initial stage and thus reducing an initial stroke. Such feature cannot be accomplished by KWON and NACEWICZ, neither alone nor in any proper combination thereof.

Thus, Applicants respectfully submit that each and every pending claim of the present application meets the requirements for patentability at least under 35 U.S.C. §§102 and 103, and respectfully request the Examiner to indicate the allowance of each and every pending claim in the present application.

Applicants note that the status of the present application is after final rejection and that once a final rejection has issued, an Applicant does not have a right to amend an application. Nevertheless, in the present situation, Applicants respectfully submit that entry of the present amendment is appropriate and proper and in full compliance with 37 C.F.R. § 1.116. Accordingly, Applicants respectfully submit that the present amendment raises no issues requiring further consideration or search and thus should be entered by the Examiner.

SUMMARY AND CONCLUSION

In view of the fact that none of the art of record, whether considered alone, or in any proper combination thereof, discloses or suggests the present invention, reconsideration of the Examiner's action and allowance of the present application are respectfully requested and are believed to be appropriate.

Applicants note that this amendment is being made to advance prosecution of the application to allowance, and should not be considered as surrendering equivalents of the territory between the claims prior to the present amendment and the amended claims. Further, no acquiescence as to the propriety of the Examiner's rejection is made by the present amendment. All other amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability (*e.g.*, for cosmetic and/or clarification purposes and/or to render the claim terminology consistent throughout the claims), and no estoppel should be deemed to attach thereto.

Should there be any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully Submitted,
Eon-Pyo HONG et al.

William S. Boshnick
Reg. No. 44,550

Bruce H. Bernstein
Reg. No. 29,027

January 21, 2008
GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191